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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/788,503      | 02/21/2001  | Hideki Tanaka        | 00N033-US           | 6750             |

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EXAMINER

NGUYEN, KHIEM D

ART UNIT PAPER NUMBER

2823

DATE MAILED: 10/08/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/788,503

Applicant(s)

TANAKA, HIDEKI

Examiner

Khiem D Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of claims 1-11 and 13-18 in Paper No. 3 is acknowledged.

### *Drawings*

2. Figures 10A-B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) of this application in view of Kim et al. (U.S. Patent 6,016,176).

AAPA teaches a tape carrier type semiconductor device comprising (See Description of the Related Art on pages 1-2 of this application and FIGS. 10A-B):  
a flexible substrate 62 on whose surface wiring is formed;

a driver circuit 63 which is mounted on the flexible substrate and drives a device connected to the flexible substrate;

wherein the flexible substrate includes a plurality of first slit 66 having a plurality of connectors for connecting both sides of the first slit wherein parts of the slit, which are separated from each other at the connector are diverged from each other at the connector in a direction perpendicular to the slit (See FIG. 10B); and,

wherein the flexible substrate includes a second slit for folding the tape carrier type semiconductor device (See FIG. 10B);

AAPA fails to teach wherein the flexible substrate is changed in shape, thereby form the rib that is substantially perpendicular to the plurality of the first slits as recited in present claims 6-9.

Kim teaches forming a reinforcement plate 34 on the flexible portion 32 wherein the reinforcement plate is substantially perpendicular to the slit 18 (See col. 3, lines 16-30 and FIGS. 2-4). *It would have been obvious to one of ordinary skill in the art of making semiconductor devices* to incorporate Kim's teaching into AAPA's method because in doing so the reinforcement plate may serves to maintain a shape of the LCD device when it is unfolded. See col. 3, lines 16-27.

5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) of this application in view of Kim et al. (U.S. Patent 6,016,176).

AAPA teaches a tape carrier type semiconductor device comprising (See Description of the Related Art on pages 1-2 of this application and FIGS. 10A-B):

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a flexible substrate 62 on whose surface wiring is formed;

a driver circuit 63 which is mounted on the flexible substrate and drives a device connected to the flexible substrate; and,

wherein the flexible substrate includes a slit 66 for folding the flexible substrate (See FIG. 10B);

AAPA fails to teach wherein a portion of the flexible substrate is changed in shape, thereby to form the rib that is substantially perpendicular to the slit as recited in present claims 10-11.

Kim teaches forming a reinforcement plate 34 on the flexible portion 32 wherein the reinforcement plate is substantially perpendicular to the slit 18 (See col. 3, lines 16-30 and FIGS. 2-4). *It would have been obvious to one of ordinary skill in the art of making semiconductor devices* to incorporate Kim's teaching into AAPA's method because in doing so the reinforcement plate may serves to maintain a shape of the LCD device when it is unfolded. See col. 3, lines 16-27.

6. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) of this application in view of Kim et al. (U.S. Patent 6,016,176).

AAPA teaches a flexible substrate 62, which includes a first slit 66 having a plurality of connectors for connecting both sides of the first slit, and on whose surface wiring having a predetermined pattern is formed (See Description of the Related Art on pages 1-2 of this application and FIGS. 10A-B);

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wherein parts of the slit, which are separated from each other at the connector are diverged from each other at the connector in a direction perpendicular to the slit (See FIG. 10B); and,

wherein the flexible substrate includes a second slit 67 for folding the flexible substrate (See FIG. 10B);

AAPA fails to teach wherein a portion of the flexible substrate is changed in shape, thereby to form the rib that is substantially perpendicular to the first slit as recited in present claims 17-18.

Kim teaches forming a reinforcement plate 34 on the flexible portion 32 wherein the reinforcement plate is substantially perpendicular to the slit 18 (See col. 3, lines 16-30 and FIGS. 2-4). *It would have been obvious to one of ordinary skill in the art of making semiconductor devices* to incorporate Kim's teaching into AAPA's method because in doing so the reinforcement plate may serves to maintain a shape of the LCD device when it is unfolded. See col. 3, lines 16-27.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D Nguyen whose telephone number is (703) 306-0210. The examiner can normally be reached on Monday-Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (703) 308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-9179 for regular communications and (703) 746-9179 for After Final communications.

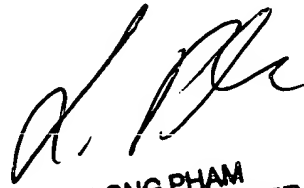
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

K.N.  
October 1, 2002

  
LONG PHAM  
PRIMARY EXAMINER